

CLAIMS

1. A method for preparing a windowpane with a frame, which comprises extruding a resinous material for a frame in a certain shape from a shaping die to form a shaped product for the frame, introducing a windowpane into a pressing member as well as forwarding the shaped product to the pressing member, the pressing member located at a position apart from the shaping die by a certain distance, and relatively moving the pressing member with respect to the windowpane along a peripheral portion of the windowpane so as to forcibly fit the shaped product to at least one surface of the peripheral portion of the windowpane, characterized in that it comprises providing a pressing roller in a floating frame located so as to be vertically movable with respect to the pressing member, providing a delimiting space, at least a portion of which is defined by the pressing roller, and unifying the frame to the peripheral portion of the windowpane by forcibly fitting the shaped product to the peripheral portion of the windowpane by means of the pressing roller while passing the shaped product and the windowpane through the delimiting space.
2. The method for preparing a windowpane with a frame according to Claim 1, wherein the pressing member includes a base frame, a floating frame provided inside the base frame through an elastic member so as to be vertically movable with respect to the base frame, and a

pressing roller provided inside the floating roller, and the pressing member is utilized to unify the frame to the peripheral portion of the windowpane.

3. A method for preparing a windowpane with a frame,
 5 which comprises extruding a resinous material for a frame in a certain shape from a shaping die to form a shaped product for the frame, introducing a windowpane into a pressing member as well as forwarding the shaped product to the pressing member, the pressing member located at a
 10 position apart from the shaping die by a certain distance, and relatively moving the pressing member with respect to the windowpane along a peripheral portion of the windowpane so as to forcibly fit the shaped product to one surface of the peripheral portion of the
 15 windowpane, characterized in that it comprises providing a floating frame so as to be vertically movable with respect to the pressing member, providing a swingable frame in the floating frame so as to be swingable, providing a pressing roller in the swingable frame to
 20 provide a delimiting space, at least a portion of which is defined by the pressing roller, and unifying the frame to the peripheral portion of the windowpane by forcibly fitting the shaped product to the peripheral portion of the windowpane by the pressing roller while passing the
 25 shaped product and the windowpane through the delimiting space.

4. The method for preparing a windowpane with a frame

according to Claim 3, wherein the pressing member includes a base frame, a floating frame provided inside the base frame through an elastic member so as to be vertically movable with respect to the base frame, a swingable frame provided inside the floating frame so as to be movable, and a pressing roller provided inside the swingable frame, and the pressing member is utilized to unify the frame to the peripheral portion of the windowpane.

- 5
- 10 5. A method for preparing a windowpane with a frame, which comprises extruding a resinous material for a frame in a certain shape from a shaping die to form a shaped product for the frame, introducing a windowpane into a pressing member as well as forwarding the shaped product
- 15 to the pressing member, the pressing member located at a position apart from the shaping die by a certain distance, and relatively moving the pressing member with respect to the windowpane along a peripheral portion of the windowpane so as to forcibly fit the shaped product
- 20 to both surfaces of the peripheral portion of the windowpane, characterized in that it comprises providing a floating frame with a lower pressing roller for pressing a lower side of the shaped product and a vertical wall roller for pressing an edge surface of the
- 25 shaped product remote from an opening direction of a windowpane biting portion of the shaped product toward an inner portion of the windowpane, the floating frame

provided so as to be vertically movable with respect to the pressing member, and unifying the frame to the peripheral portion of the windowpane by forcibly fitting the shaped product to the peripheral portion of the windowpane by means of the lower pressing roller while passing the shaped product and the windowpane through a delimiting space, at least a portion of which is defined by the lower pressing roller and the vertical wall roller.

6. The method for preparing a windowpane with a frame according to Claim 5, wherein the pressing member includes a base frame, a floating frame provided inside the base frame through an elastic member so as to be vertically movable with respect to the base frame, and a lower pressing roller and a vertical roller, both rollers provided inside the floating frame, and the pressing member is utilized to unify the frame to the peripheral portion of the windowpane.

~~7. The method for preparing a windowpane with a frame according to Claim 3, 4, 5 or 6, which comprises fitting and unifying the shaped product to the peripheral portion of the windowpane while providing the floating frame with a to-and-fro motion in a direction perpendicular to a travel direction of the shaped product as seen in a plan view by pressing the floating frame directly or through the shaped product by means of an edge surface of the windowpane.~~

8. An apparatus for preparing a windowpane with a frame, which comprises a shaping die for extruding a resinous material for a frame in a certain shape to form a shaped product for the frame, a pressing member
5 provided at a position apart from the shaping die by a certain distance and receiving the shaped product and a windowpane therein, and a driving device for relatively moving the pressing member with respect to the windowpane along a peripheral portion of the windowpane, and which
10 forcibly fits the shaped product to at least one surface of the peripheral portion of the windowpane, characterized in that the pressing member includes a base frame, a floating frame provided inside the base frame through an elastic member so as to be vertically movable
15 with respect to the base frame, and a pressing roller provided inside the floating roller, the pressing roller defining at least a portion of a delimiting space, through which the shaped product and the windowpane are passing, wherein the shaped product is forcibly fitted to
20 the peripheral portion of the windowpane by the pressing roller to be unified to the peripheral portion of the windowpane.

9. An apparatus for preparing a windowpane with a frame, which comprises a shaping die for extruding a
25 resinous material for a frame in a certain shape to form a shaped product for the frame, a pressing member provided at a position apart from the shaping die by a

certain distance and receiving the shaped product and a windowpane therein, and a driving device for relatively moving the pressing member with respect to the windowpane along a peripheral portion of the windowpane, and which
5 forcibly fits the shaped product to at least one surface of the peripheral portion of the windowpane, characterized in that the pressing member includes a base frame, a floating frame provided inside the base frame through an elastic member so as to be vertically movable
10 with respect to the base frame, a swingable frame swingably provided inside the floating frame, and a pressing roller provided inside the swingable frame, the pressing roller defining at least a portion of a delimiting space, through which the shaped product and
15 the windowpane are passing, wherein the shaped product is forcibly fitted to the peripheral portion of the windowpane by the pressing roller to be unified to the peripheral portion of the windowpane.

10. An apparatus for preparing a windowpane with a
20 frame, which comprises a shaping die for extruding a resinous material for a frame in a certain shape to form a shaped product for the frame, a pressing member provided at a position apart from the shaping die by a certain distance and receiving the shaped product and a
25 windowpane therein, and a driving device for relatively moving the pressing member with respect to the windowpane along a peripheral portion of the windowpane, and which

forcibly fits the shaped product to at least one surface of the peripheral portion of the windowpane, characterized in that the pressing member includes a base frame, a floating frame provided inside the base frame through an elastic member so as to be vertically movable with respect to the base frame, and a lower pressing roller for pressing a lower side of the shaped product and a vertical wall roller for pressing an edge surface of the shaped product remote from an opening direction of a windowpane biting portion of the shaped product toward an inner portion of the windowpane, both rollers provided inside the floating frame and defining at least a portion of a delimiting space, through which the shaped product and the windowpane are passing, wherein the shaped product is forcibly fitted to the peripheral portion of the windowpane by the lower pressing roller and the vertical wall roller to be unified to the peripheral portion of the windowpane.

add
A27